SCCOPE

MAGAZINE OF NAVY MEDICINE RESEARCH & DEVELOPMENT

FALL 2024

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ISSUE 6 FALL 2024

Editor's Desk

Welcome back to THE SCOPE.

As you may have guessed by the cover, this issue of the SCOPE is all things NAMRU INDO PACIFIC. I'm proud that this issue showcases one of our OCONUS commands so heavily, featuring several stories, our Q&A and Looking Aft, each dedicated to NAMRU-IP.

I took plenty of notes and photos for the SCOPE's first travel blog while traveling with Capt. Jones this past July; it's a bit long, but I hope you find it entertaining.

It's not just INDO PACIFIC, either. In this issue we take a look across our eight R&D commands and highlight another great MHSRS showing.

We are looking to expand the science in this magazine and would like a contributing editor every issue to write about a very specific project. Think of this as a micro journal article. If you are interested, please drop me a line.

—Tommy Lamkin

THE SCOPE

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In this Issue:

NAMRU INDO PACIFIC

Inside Malaysian Partnership
NMR&D Commander Visits SE Asia
Unit Holds Change of Command Ceremony
SCOPE Travel Blog: Malaysia & Singapore
Looking Aft: Malaria in 1960s Vietnam
Q&A With Former NAMRU INDO PACIFIC CO

MHSRS

NMR&D Wrap Up

NAMRU Dayton Presents on Women's Health

NMR&D Award Winners

Extreme Weather

NHRC Research Featured in NPR Podcast

NAMRU EURAFCENT

Command reaches Agreement with Egyptian Regenerative Medicine Center

On the Cover:

Singapore, and its iconic merlion statue
Photo by Tommy Lamkin



NHRC Extreme Weather Research Featured on NPR Podcast By Mike Wilson and John Marciano

episode of National Public Radio's ness," Jones explained in an inter- sode of the series' sixth season. (NPR) Marketplace podcast series, view on the podcast. "We do re-"How We Survive," released on September 11.

The series, which focuses on climate change, featured interviews with command staff discussing research efforts on warfighter readiness in extreme weather conditions.

Podcast host, Kai Ryssdal, a former Navy pilot, visited NHRC's Warfighter Performance Lab in April, where he met with Dr. Doug Jones extreme weather conditions.

Research Center (NHRC) stress undermine warfighter perfor- featuring was featured in the latest mance, and therefore their readi- Changing Threat," is the first epi-

> "We know that heat stress and cold stress undermine warfighter performance, and therefore their readiness"

and his thermal physiology team to search to figure out what can we do service employees and contractors, understand how the lab conducts about that, how we can prevent it, whose core competencies include physiological and cognitive studies and if it's occurring, how can we physiology, microbiology, psycholon Marines to optimize perfor- mitigate it? How can we prepare ogy, epidemiology and biomedical mance and increase resilience in our warfighters for these types of engineering, among other areas of environments?"

esearch from Naval Health "We know that heat stress and cold The episode of "How We Survive" NHRC,

> NHRC's mission is to optimize military operational readiness through research on warfighter, veteran and family health. NHRC supports military mission readiness with research and development that delivers research-driven solutions to the health and readiness challenges our military population faces on the battlefield, at sea, abroad and at home. NHRC's team of scientists and researchers consists of activeduty service members, federal civil expertise.



NAMRU INDO PACIFIC Facilitates U.S. - Vietnam Agreement for Collaboration in Military Medicine

By Mike Wilson

aval Medical Research zations at the signing. Unit (NAMRU) INDO Services Uniformed (USU) on September 9, 2024.

Jose A. Garcia, director NAMRU INDO PACIFIC'S Vietnam detachment, serving as the lead facilitator. The SOI aims to enhance collaboration between both on military medicine, nations through joint efforts in medical training, scientific research and academic cooperation.

Lt. Gen. Nguyen Xuan Kien, VMMU President, and Dr. Glendon Diehl, the acting USU president,

PACIFIC facilitated the "NAMRU INDO PACIFIC, in col- between both institutions." signing of a Statement of Intent laboration with the U.S. Embassy's (SOI) between Vietnam Military Office of Defense Cooperation, has U.S. Secretary of Defense Lloyd Medical University (VMMU) and placed a stronger focus on advanc- Austin and Vietnam's Minister of University ing military medical cooperation Defense, General Phan Van Giang, between the two nations," Garcia emphasized their commitment to noted. "NAMRU INDO PACIFIC strengthening military medical co-The signing took place at USU Be- played a key role in facilitating the operation during a recent U.S.thesda, Maryland, with Lt. Cmdr. signing of the SOI between VMMU Vietnam Bilateral Defense meeting

"NAMRU INDO PACIFIC

played a key role in facilitating the signing of the SOI between VMMU and USU by coordinating communications over the course of six months to finalize the agreement between both institutions"

represented their respective organi- and USU by coordinating communications over the course of six months to finalize the agreement

> at the Pentagon. President Joe Biden also elevated the U.S.-Vietnam bilateral relationship to a Comprehensive Strategic Partnership during a visit to Vietnam in September of 2023.

> The growing collaboration between the U.S. and Vietnam in military medicine is intended to benefit both nations' armed forces, and contribute to regional stability and global health initiatives.■



NAMRU EURAFCENT Signs Agreement with Egypt Center for Research and Regenerative Medicine

By Greta Ruffino

AFCENT signed a datasharing agreement with the Egypt Center for Research and Regenerative Medicine (ECRRM) during a ceremony in Cairo on August 19.

The event was attended by Egyptian representatives: ECRRM CEO Maj. Gen. Amin Fouad Shaker and Executive Officer Maj. Gen. Mohamed El-Gohary, as well as by **EURAFCENT:** Capt.

"ECRRM remains our strongest partner and ally within Egypt"

Virginia ments, roles and responsibilities of the pandemic.

Blackman, commanding officer, each party in conducting a retroand leadership from the command's spective study of circulating respiraval Medical Research Cairo detachment, Lt. Cmdr. Dustin atory illnesses during the COVID-(NAMRU) EUR- Harrison and Dr. Emad Mohareb. 19 pandemic. The study aims to identify and describe types of infections that were not tested for during the pandemic.

The agreement outlines the requirements, roles and responsibilities of each party in conducting a retrospective study of circulating respiratory illnesses during the COVID-19 pandemic. The study aims to identify and describe types of infec-U.S. representatives from NAMRU The agreement outlines the require- tions that were not tested for during

op a surveillance infrastructure un- orate in science." der this new partnership.

better understand the changing AFCENT, in collaboration with Ain AFCENT entered into an agreeecology of respiratory illnesses dur- Shams University, will begin to im- ment to return the site to the Minising the unique period of the plement the testing, detection and try of Defense, and the compound COVID pandemic," Blackman ex- reporting of over 1,500 respiratory was renamed as the Egyptian Cenplained, "potentially providing in- samples collected between 2020 ter for Research and Regenerative sights on the impact of different and 2022. This project will provide Medicine. public health interventions. Moreo- critical missing data in the patterns

volve the collection of prospective portant, even more important is the al interest of the parties involved. samples, in collaboration with Ain activation of a renewed partnership, Shams University, to further devel- demonstrating the ability to collab- After a more than 70-year history

"This work will help scientists to both ECRRM and NAMRU EUR- facility in Cairo. NAMRU EUR-

Additionally, the research will in- be answered in this study are im- will inform future projects of mutu-

of working collaboratively with multiple Egyptian governments, in The resident technical experts of 2018 the Navy closed its research

ver, while the scientific questions to of disease spread within Egypt and Last year, NAMRU EURAFCENT and ECRRM celebrated a major milestone, signing a Memorandum of Understanding (MOU) with EC-RRM which enables partnership on research topics of mutual interest to both the Government of Egypt and the United States. The MOU forms the foundation for a new era in Egypt-U.S. relations, that builds upon the accomplishments of nearly 80 years.

> "ECRRM remains our strongest partner and ally within Egypt," Harrison explained, "and being able to utilize their expertise and state-of -the-art facilities and equipment will provide invaluable disease surveillance data in Egypt and in the region."

> NAMRU EURAFCENT's mission is to study, monitor and detect infectious disease threats of military and public health importance in Central, European and Africa Commands. Originally established in 1946 in Cairo under the name NAMRU-3, the command moved its headquarters to Sigonella in 2019. ■





NAMRU INDO PACIFIC Holds Change of Command

By Sidney Hinds

PACIFIC held a change demic. of command ceremony at the American ambassador's residence on July 26.

Capt. Nicholas Martin relieved Capt. Jonathan Stahl as commanding officer of NAMRU INDO PA-CIFIC in an official ceremony in front of distinguished guests, family, friends and shipmates. Capt. Franca Jones, commander, Naval Medical Research Command Stahl mony.

ship, lauding the command's ac- mand's support to the wider fleet in the active-duty population.

complishments in collaboration maintaining readiness in response aval Medical Research with its regional partners, and in its to the COVID-19 pandemic. That Unit (NAMRU) INDO response to the COVID-19 pan- year, the command established a

> "It has been my privilege to work with the staff of NAMRU INDO PACIFIC for the past six years"

command assumed

research protocol to evaluate the burden and distribution of past COVID-19 cases among activeduty personnel assigned to locations in the USINDOPACOM area of responsibility (AOR). These efforts to support fleet and U.S. response to COVID-19 continued throughout Stahl's time in command, in addition to the command's other ongoing efforts to support disease and vector surveillance along of with support to partner nations in (NMRC), presided over the cere- NAMRU INDO PACIFIC (then the AOR. In 2023, the command NAMRU-2) in 2020, after serving completed a unique study on the as the command's executive officer necessity for and effectiveness of Jones commented on Stahl's leader- for two years. He oversaw the com- updated COVID-19 vaccines for



with the staff of NAMRU INDO Northwestern University Dental and treat infectious disease in the PACIFIC for the past six years," School with a Doctor of Dental region." Stahl said, "and I am personally Surgery. In 2008, he was appointed grateful for your tremendous ef- as Navy Medicine's specialty lead- "I am confident that together, with forts. The resilience and strength er for Preventive Dentistry, a posi- our shared sense of purpose and you have demonstrated is remarka- tion he would hold until 2012. In determination, we will achieve ble, and I am proud to have been on 2013, he completed a PhD in oral great things," Martin added. your team."

The ceremony also marked Stahl's nia San Francisco. After earning his research in cooperation with host retirement after 30 years of service PhD, Stahl spent 6 years at nations in Australia, Korea, Laos, to the U.S. Navy. Stahl entered ser- NAMRU SAN ANTONIO as a Malaysia, Mongolia, Papua New

Tommy Lamkin

and craniofacial sciences, while assigned to the University of Califor- NAMRU INDO PACIFIC conducts principal investigator. In 2018, he Guinea, Singapore, Thailand and joined NAMRU INDO PACIFIC as Vietnam to improve global health, their executive officer.

Before assuming command of such as malaria, dengue fever virus NAMRU INDO PACIFIC, Martin and gastro-intestinal pathogens. served as the executive officer for NAMRU EURAFCENT from 2022 to 2024. Martin commissioned as a lieutenant junior grade in the U.S. Navy in 2003, after completing a Master of Science in Environmental Science and Health. From 2020 to 2022, while part of the Navy Bureau of Medicine and Surgery (BUMED), Martin coordinated COVID-19 vaccine distribution for the Department of the Navy. Martin

also served as Navy Medicine's environmental health officer specialty leader, overseeing a community of more than 100 public health professionals during the COVID-19 pandemic.

"We sit, literally and figuratively, at the nexus of diplomacy, health security and infectious disease research," Martin observed. "There can be tension at this point of conversion, but there is also opportunity to promote the important and impactful work we do with our partners while advancing our core mis-"It has been my privilege to work vice in 1994, after graduating from sion...research to detect, prevent

ensure military force health protection and address infectious diseases





NAMRU South Virology Surveillance Efforts Against Dengue By HM2 Alejandra Ramírez Alarcón

search Unit (NAMRU) SOUTH continuing until March 2024. The In the past, cases were mainly published findings from a study of outbreak prompted a coordinated found in the Amazon region and on samples processed from a recent response to inform and support the the northern coast near Ecuador." dengue outbreak, in collaboration Peruvian

with the Health Ministry of Peru and Naval Medical Research Command (NMRC).

Dengue fever is a viral mosquitoborne disease that is transmitted through the bite of an infected Aedes mosquito. Symptoms such as fever, tiredness, aches and pains, and headaches usually begin four to 10 days after infection, and are sim- "The main issue is that dengue cas- tect when an outbreak occurs and ilar to influenza, COVID-19 and es began extending to other regions monitor the rise in cases; the netmalaria. The Pan American Health of Peru, where cases were previous- work notifies the Peruvian Ministry Organization (PAHO) reports that ly uncommon," said Dr. Julia Am- of Health, which can then raise the Peru has the highest fatality rate for puero, Febrile/Dengue surveillance alarm in different regions of Central the disease in South America. division lead for NAMRU SOUTH, and South America.

cientists from the Virology Researchers saw an increase in "However, in 2023, the virus was Ministry of Health.

> "The main issue is that dengue cases began extending to other regions of Peru, where cases were previously uncommon"

Surveillance Program at Dengue cases across regions of Pe- spreading to the central coast, in-U.S. Naval Medical Re- ru, beginning in April 2023 and cluding Lima, the Peruvian capital.

> The Peruvian Health Ministry has reported a 262% rise in dengue fever cases in 2024, compared to 2023; the increase in cases has been attributed to high temperatures and excessive rainfall since 2023, due to the El Nino weather pattern.

> Ampuero and the surveillance team have implemented a network to de

Ministry of Health."

igation efforts.

other febrile illnesses" explained ments." Lt. Cmdr. William Graham, department head for the Virology Surveillance program. "We are seeing an evolution of a different illness that causes similar symptoms which last for a longer period of time, and we need to know which illnesses are which to not waste resources."

In the U.S. Southern Command (SOUTHCOM) area of responsibility (AOR), there are threats of dengue, COVID-19, influenza and hantavirus, requiring robust systems of surveillance and monitoring.

"Having designed regions centralized around lab hub locations provides additional analytical testing, which in turn ensures proper execution of additional protocol directives and diagnostic requirements," Graham said.

Within 24 to 48 hours, the program

"NAMRU SOUTH strengthens the provides data from each consolidatcountry's surveillance by covering ed region around the SOUTHCOM more sites around the region," Am- AOR into one report for the Minispuero said. "Assisting with cold try of Health and the Global chain technology to preserve sam- Emerging Infections Surveillance ples for a longer period, and report- Branch. The program informs fleet ing any increase in cases of febrile, and terrestrial movement decisiondengue or other pathogens strength- making, and its design reduces the ens the capabilities of the Peruvian strain on central lab processing see what genetic variations they times.

government in their own extensive pathways we have implemented revised," explained Dr. Kimberly research, helping them apply find- have been designed to monitor Bishop-Lilly, the head of NMRC's ings to clinical diagnostics and mit- known threats and identify un- Genomics and Bioinformatics Deknown threats over time, said Gra- partment. "Data from the samples ham. "The laboratory assets and will inform force health protection "The longer period of febrile ill- resources have been positioned in a decision-making and potentially nesses opens opportunities for more modular platform allowing them to reveal what other acute febrile illresearch, and for designing better be deployed based on pathogen de- ness pathogens are co-circulating in protocols to differentiate between tection and operational require- the population at the same time as

> "NAMRU SOUTH strengthens the country's surveillance by covering more sites around the region"

NAMRU SOUTH collaborates with microbial resistant infections. NMRC's Biological Defense Research Directorate (based out of The U.S. Ambassador to Peru, Frederick, Maryland) in these proresearch, with the aim of developing better vaccines and treatments.

nomes and other virus genomes to in our region."



encode, we can evaluate whether they contain new mutations that The program assists the Peruvian "The disease detection and alert might require detection assays to be Dengue virus are occurring."

> "This collaboration between multiple labs brings out each other's' strengths," Bishop-Lilly added. "From my experience, it is always better to have multiple eyes on a problem."

> In July, the Peruvian news agency Andina released a story about cooperative efforts between the U.S. and Peru in bridging scientific cooperation for early detection of diseases such as Dengue, malaria and anti-

Stephanie Syptak-Ramnath, visited cessing efforts, sending samples for NAMRU SOUTH on July 9. She sequencing and further long-term thanked the command for their "exceptional medical and public health research," and added, "I thank the entire team for their dedi-"By analyzing Dengue virus ge- cation and effort to improve health



NMRC Leadership Provides Guidance on Marine Health to the Health Services Operational Advisory Group

By Sidney Hinds **Photos by Tommy Lamkin**

aval Medical Research meeting of the Health Services Op- leaders who support the Fleet Ma- rapidly changing field of military erational Advisory (HSOAG) on September 11.

four days from September 9-12, brought together subject matter experts, leadership and stakeholders to discuss the state of Marine healthcare and the organizational structures that support it.

NMRC staff presented ongoing research and development work to other HSOAG attendees. Capt. Franca Jones, NMRC commander, spoke to the assembled stakeholders on the role of Research and De- support," said Rear Adm. Pam Milvelopment in Marine health.

Command (NMRC) lead- "The Health Services OAG is an development are critical for the Maership and staff attended a opportunity for Navy Medicine rine Corps to keep pace with the Group rine Force to come together and, medicine." aligning with the Commandant's guidance, focus on shaping the fu- In between sessions, HSOAG mem-

> "Research and development are critical for the Marine Corps to keep pace with the rapidly changing field of military medicine"

ler, The Medical Officer (TMO) of the Marine Corps. "Research and

The meeting, which occurred over ture of operational health service bers engaged with NMRC researchers during a meet-and-greet session, with research posters and a display on the command's advanced medical development program. Posters on display showed recent research projects and capabilities in the areas of blast exposure; biological defense; vaccines and therapeutics; infectious diseases and NMRC's diagnostic laboratory; and current clinical trials, all of which support Marine health and readiness.





"NMRC's participation in the Health Services Operational Advisory Group is a critical conduit for bilateral communications and collaborations to align Navy Medicine research and development efforts to address the medical capability gaps and requirements of the U.S. Marine Corps"

bilateral communications and col- all healthcare matters. TMO serves diseases, biological warfare detecresearch and development efforts to with the appropriate Headquarters care, environmental health conaddress the medical capability gaps agencies for determining medical cerns, aerospace and undersea medand requirements of the U.S. Ma- requirements for Marines, and icine, medical modeling, simularine Corps," said Cmdr. Mark Si- makes recommendations on all tion, operational mission support, mons, deputy science director for medical matters relevant to support- epidemiology and behavioral sci-NMRC.

ing the Marine Corps.

in the Marine Corps Health Services, led In support of the Navy, Marine Health Services Operational Advi- by TMO, advises the Commandant Corps, and joint U.S. warfighters, sory Group is a critical conduit for and Marines Headquarters staff on NMRC researchers study infectious laborations to align Navy Medicine as the functional expert in working tion and defense, combat casualty ences.■







(NMR&D) wrapped up attendance at the 2024 laborators throughout the Military ers that enabled attendees to hear or Military Health System Research Health System. Symposium (MHSRS), which began on August 25 and concluded on August 29.

MHSRS, a four-day annual event which took place at the Gaylord Palms Resort & Conference Center, provided personnel with multiple forums to demonstrate the impact of research done by NMR&D.

Over 130 NMR&D personnel attended MHSRS this year, including "MHSRS 2024 was another success of Sigonella and conducts research military, civilian and contractor re- for NMR&D, highlighting the in Europe, Africa and the Middle search, medical and support person- depth and breadth of our capabili- East. "These opportunities enable nel. Attendees participated in a ties to work towards solutions in us to focus our research efforts to range of conference activities, pre- military medicine," said Dr. Jill align to DoD priorities, so that we senting at 31 breakout sessions, dis- Phan, NMR&D and Naval Medical can better support the warfighter."

Research and Development three poster sessions and engaging ence director. "Our team presented commands with stakeholders and potential col- high-quality presentations and post-

> "MHSRS 2024 was another success for NMR&D, highlighting the depth and breadth of our capabilities to work towards solutions in military medicine"

he eight Navy Medicine playing 88 research posters across Research Command (NMRC) scisee the great work that's being done by NMR&D."

> "As an overseas infectious disease research command, MHSRS provides an important opportunity to connect our U.S. Military and host nation scientists to key leaders in the Department of Defense," explained Capt. Virginia Blackman, commanding officer for Naval Medical Research Unit (NAMRU) EURAFCENT, which operates out

During the opening plenary session, Roxana Lescano from NAMRU SOUTH was recognized with the Distinguished Service Award and NAMRU INDO PACIFIC received the Outstanding Research Accomplishment Award. Dr. Lester Martinez-Lopez, the Assistant Secretary of Defense for Health Affairs, specifically lauded the work happening at Army and Navy overseas laboratories.

"MHSRS allowed NMR&D to highlight our wide variety of scientific accomplishments and successes across our core capability areas," Phan said, "These presentations also highlighted our successes in collaborating with a wide variety of partners internal and external to DOD and from a variety of nations, which events like MHSRS function to enhance and expand. This week was a great success and it was especially exciting to have another year with NMR&D awardees recognized both at the plenary session and in the poster award session!"

Two NMR&D poster presentations were recognized during the final awards ceremony, out of over 1400



"As an overseas infectious disease research command, MHSRS provides an important opportunity to connect our U.S. Military and host nation scientists to key leaders in the Department of Defense"

posters from throughout the symposium. A poster from Naval Health Research Center (NHRC)'s Dr. Evan Chinoy won first place in the Poster Session 3 category, and another from NAMRU San Antonio's Dr. Annette Rodriguez won second place in the Poster Session 2 category.

With over 4100 registrants, MHSRS presents a unique opportunity for researchers and leadership to meet with future collaborators in the Military Health System.

"This really is the premiere venue to meet researchers and program managers across the DoD to promote and discuss collaboration in areas of common interest across the different services," said Dr. David Fothergill, NSMRL science director. "I've personally been able to promote collaborations with industry, Air Force and Army at MHSRS that have resulted in programmatic research in environmental monitoring for the submarine force and diving community."





NMR&D is led by NMRC, and is comprised of NSMRL, NHRC, and NAMRUs Dayton, San Antonio, INDO PACIFIC, EURAFCENT, and SOUTH.

These eight commands work together and with external collaborators from academia, industry and abroad to advance the health of service members, their dependents, U.S. citizens and citizens of our partner nations. NMR&D capabilities harnessed to achieve this mission include infectious diseases, warfighter health, performance and operational support, combat casualty care, bioeffects risk mitigation & countermeasures, physical, mental, and behavioral health and research support and execution.

"Coming from the operational side of Navy diving," added Navy Diver 1st Class Graham Loiselle, who represented NSMRL at the NMR&D exhibit, "It's great to see how much hard work is being done here on the back end to create future studies that will enable us to do our jobs in the field more effectively and efficiently."

"It's great to see how much hard work is being done here on the back end to create future studies that will enable us to do our jobs in the field more effectively and efficiently"

MHSRS is the Department of Defense's premier scientific meeting that focuses specifically on the unique medical needs of service members. This annual educational symposium brings together healthcare professionals, researchers and DoD leaders for four days of critical learning, intensive idea sharing and relationship building.

NMR&D is engaged in a broad spectrum of activity from basic science in the laboratory to field studies in austere and remote areas of the world to investigations in operational environments. In support of the Navy, Marine Corps, and joint U.S. warfighters, researchers study infectious diseases, biological warfare detection and defense, combat casualty care, environmental health concerns, aerospace and undersea medicine, medical modeling, simulation, operational mission support, epidemiology and behavioral sciences.





NAMRU Dayton Presents Military Female Health Research at MHSRS 2024

By HM2 Alejandra Ramírez Alarcón

fective performance of Na- bladder relief. vy aviation personnel is a critical part of Lt. Alexandra Kaplan's job. Her team at Naval Medical Research Unit (NAMRU) Dayton presented ongoing research on military female health research, aimed at overcoming health barriers faced by women in the aviation community, at the Military Health System Research (MHSRS) on August 28.

Kaplan, principal investigator, and explained. her team observed the challenges posed to an aviator's cognitive and Researchers spoke to female avia- access to them." optimal performance in the face of tors across different aviation plat-

nsuring the safety and ef- biological needs such as efficient forms, through a virtual focus

"We are looking at what those barriers are, and whether a barrier is in the supply chain, culture or in the operational

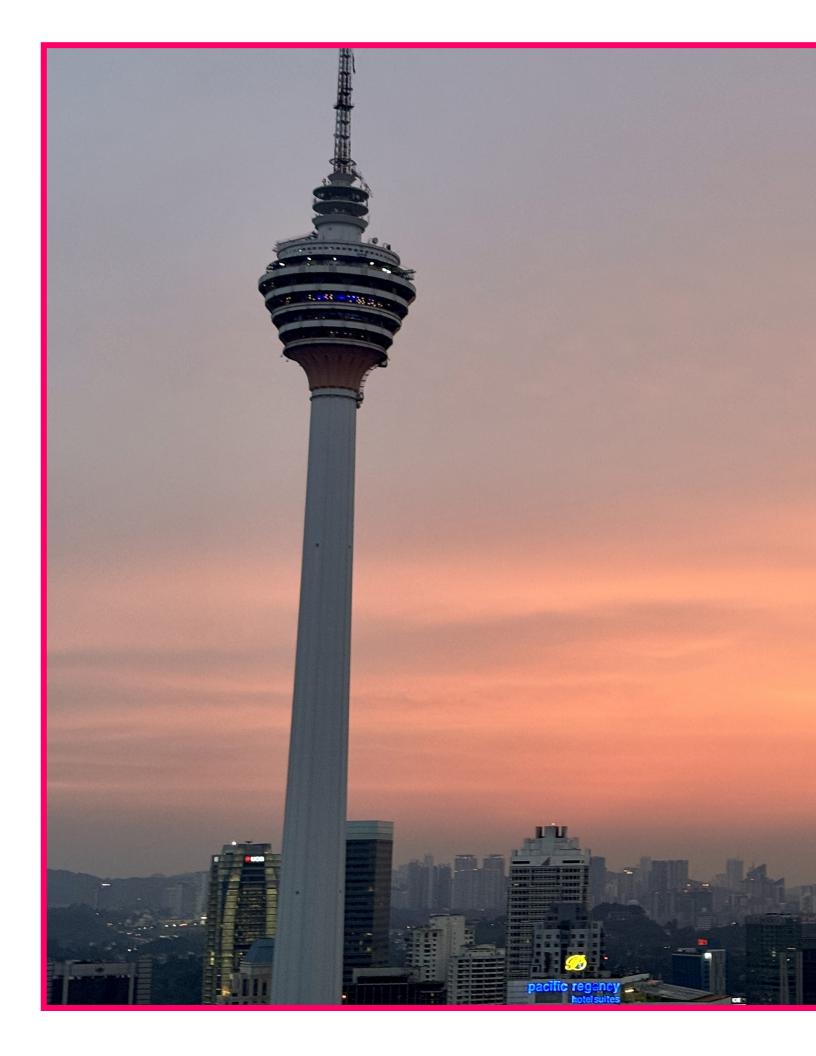
"We are looking at what those bar-Symposium riers are, and whether a barrier is in the labs," said Kaplan, "and a lot of the supply chain, culture or in the people have used them in the operaoperational environment," Kaplan tional environment, and have good

group. Participants were asked to give feedback on their awareness and use of different hygienic and healthcare technologies.

Currently, there are technologies available that are in use for both male and female aviators.

"These products have been tested in things to say, but a lot of people do not want to use them or do not have

Continued on page 43





Story by Tommy Lamkin and Sidney Hinds Photos by Tommy Lamkin



INDO PACIFIC, has described the needs of U.S. service members. partner nations as the lifeblood of U.S. Navy's partners, is the latest Navy Medicine's OCONUS re- of these countries to see an expansearch and development.

"The best part of my job is sitting down with excellent researchers from a host nation, putting our goals and concepts on paper, designing a project, and then watching the project help meet the needs of the partners as it comes to life," Letizia explained. "Since I first started playing with Legos many years ago, I have enjoyed building things. Watching NAMRU INDO PACIFIC build new partnerships and strengthen the previous ones brings back that same joy I felt as a kid, making all of the pieces fit together correctly to make a great creation."

NAMRU INDO PACIFIC partners the AOR. This network of collabo-



apt. Andrew Letizia, Sci- rators continues to grow as the ence director of Naval scope of Navy Medicine research Medical Research Unit expands to meet the ever-evolving collaborations with Malaysia, home to many of the sion in collaboration.



KUALA LUMPUR

with 10 different countries within Like many Sailors, Lt. Cmdr. Dawn Weir wakes up early to make her way to the office. Unlike other Sailors, Weir's walk to work takes her through the bustling metropolis of Kuala Lumpur, the capital of Malaysia. From her office at the U.S. Embassy, she oversees research projects in Malaysia for NAMRU INDO PACIFIC, one of Navy Medicine's three OCONUS research commands.

> Weir, a microbiologist, is the first person to fill this brand-new billet. NAMRU INDO PACIFIC has been building partnerships within Malaysia for almost 15 years, and Weir is the first active-duty U.S. Sailor stationed in-country.



"The best part of my job is working with our Malaysian partners"

"The best part of my job is working with our Malaysian partners," Weir said, "to foster and strengthen existing collaborative research endeavors, as well as to expand and create new efforts to achieve both their and our research needs and objectives. I also enjoy sharing space and working with my Office of Defense Cooperation and other U.S. Embassy colleagues to support various medical lines of effort and other global health security initiatives."





In 2007 NAMRU INDO PACIFIC, "We used to have just a few probigger relationship, spanning multi- two has grown over the years." ple projects and interoperability.

past 16 years," explained Dr. Mohd Arshil Moideen, dean of the Sazaly Abu Bakar, professor and executive director of the Tropical Infectious Diseases Research & Education Centre (TIDREC) at the University of Malaysia, "and this relationship has really grown over the years. We are now at a transition point that is going to take this relationship to the next level."

Part of that next level involves Weir as an active-duty researcher and in-country liaison.

then known as NAMRU-2, initiat- jects," added Abu Bakar. "Now we ed a partnership with the University have more activities, focused on of Malaysia. In the years since, the biomedical research. This shows partnership has grown into a much how the relationship between the

NAMRU INDO PACIFIC also "We have been working with partners with the National Defense [NAMRU INDO PACIFIC] for the University of Malaysia. Brig. Gen.





university's medical facility and defense health division, spoke highly of the partnership.

"The collaboration includes capacity building in our research, specifically in diagnostic laboratory capabilities," Moideen explained. "We are currently running a few major research collaborations with tropical disease, as well as entomology studies. Cmdr. Weir is here specifically for this research cooperation, and this has never happened before. This means that Malaysia is now a significant partner in term of research collaboration."

This means that Malaysia is now a significant partner in term of research collaboration,"

"A permanent NAMRU presence within Malaysia will not only enhance our ability to achieve our mission, but also demonstrates to our Malaysian partners our commitment to continue to work together to enhance health security in the region for years to come," said Weir. "In my experience thus far, the biggest challenges have been overcoming various administrative challenges often outside of our control that impede the progress of our collaborative research goals and objectives."



BORNEO

NAMRU INDO PACIFIC is also partnering on research in collaboration with The University of Malaysia Sabah, located in the Malaysian state Sabah, which lies on the island of Borneo.

Borneo is an island east of Kuala Lumpur, and the third largest in the world. It is home to one of the most diverse ecosystems on Earth, with native flora and fauna that includes the world's biggest flower and world's smallest elephant. Borneo is also one of the few places where orangutans live in the wild.

Borneo is also home to East Malaysia, comprised of 2 states and 1 federal territory, the country of Brunei and 5 provinces of Indonesia. The university has over 100 lecturers and more than 500 students as well as a medical and nursing school.

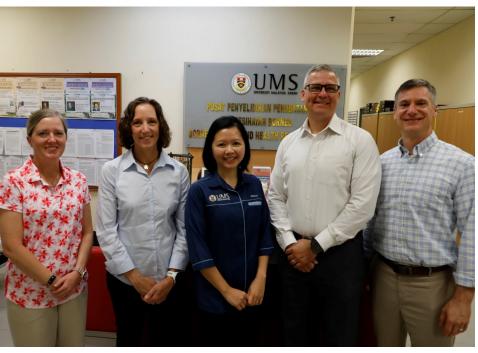
"We have a lot of diseases in Sabah," explained Dr. Yosof Ibrahim, Dean of UMS. "The number of research that has been done is limited, because of manpower and expertise. There are a lot more diseases that need to be discovered, identified and to be explored. Sabah has many different ethnicities. We have 32 different ethnicities. This is a challenge. Topography is a challenge. Dialect is a challenge. The



"There are a lot more diseases that need to be discovered, identified and to be explored"

way we [in Sabah] live and look at things are very different.

"This collaboration is beneficial," Ibrahim added, "not only to NAMRU, but to us. In a way, it opens an avenue for us to expand our research and design what our protective measures should be for rural people. 70 percent of our people are in a rural area. There is a difficulty in access to medical facilities."



also home to diverse and beautiful the USINDOPACOM area. landscapes perfect for outdoor activities like hiking, diving, and exploring national parks. I personally love the year-round warm tropical environment. Anyone who is fortunate enough to have the opportunity to visit or work in Malaysia should not pass it up."

NAMRU INDO PACIFIC plays an important role in the heath of those in the U.S. Indo-Pacific Command (USINDOPACOM) area of responsibility. One of the most culturally, socially, economically and geopolitically diverse regions, the Asia-Pacific region is home to 38 nations and 60% of the world's population. More than one-third of these nations are smaller, island nations, where many tropical diseases are The command's "hub and spoke" prevalent.

"Malaysia is rich in culture," said NAMRU INDO PACIFIC collabo-Weir, "with Malay, Chinese, Indi- rates with partners in Singapore, an, and indigenous communities. Mongolia, Cambodia, Malaysia, This diversity fosters a vibrant so- Thailand, Laos, Vietnam, Australia, cial scene and a diverse and unique Papua New Guinea and the U.S. to culinary experience! Malaysia is conduct research efforts throughout

> Anyone who is fortunate enough to have the opportunity to visit or work in Malaysia should not pass it up"

model of operations from its head-



quarters in Singapore, its wide array partners in the INDOPACOM AOR and the over 375,000 U.S service members stationed in the Pacific allow the NAMRU INDO PA-CIFIC scientific portfolio to shift, as needed, to align with host nation and sponsor priorities while maintaining focus and efforts on U.S. health security objectives.■





NAVY MEDICINE'S TOP RESEARCHER VISITS SOUTH EAST ASIA: NAMRU INDO PACIFIC SHOWS OFF



Medical Research across Southeast Asia with com- host nation. mand leadership.

Jones oversees the eight commands that comprise the Navy Medicine Research & Development (NMR&D) enterprise, which contains three overseas units, including NAMRU INDO PACIFIC. Based out of Singapore, the unit's headquarters is the hub for a vast regional operation. With detachments in Southeast Asia and research work conducted across the INDO-PACOM AOR (Area or Responsibility]), NAMRU INDO PACIFIC

searcher, Capt. Franca security, with a mission to monitor with

"Looking ahead, NAMRU INDO PACIFIC aims to expand research and partnerships to further inform force health protection policy in the region"

avy Medicine's top re- is a critical player in global health Hanoi, Vietnam, where Jones met command leadership, Jones, commander, Naval and characterize emerging and re- NAMRU INDO PACIFIC's Vi-Command emerging infectious diseases of etnam Detachment Director and (NMRC) visited Naval Medical Re- military and public health signifi- area partners. Over the past 10 search Unit (NAMRU) INDO PA- cance, and to develop mitigation years in Vietnam, the command has CIFIC from July 15-26, traveling strategies in collaboration with the partnered with local government agencies to conduct infectious disease research, focusing on malaria, The international tour kicked off in influenza and respiratory pathogens.

> "This work has been instrumental in guiding malaria countermeasures and elimination policies in the country," explained Lt. Cmdr. Jose Garcia, NAMRU INDO PACIFIC's director in Vietnam. "Looking ahead, NAMRU INDO PACIFIC aims to expand research and partnerships to further inform force health protection policy in the region."

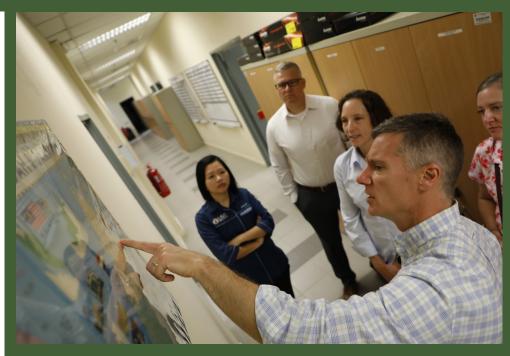
"Hosting Capt. Jones here in Vietnam was incredibly important," Garcia added. "At the NAMRU outstations, it is vital for us to showcase the work being done incountry and to introduce her to our local partners."

As the enterprise's top scientist, Jones is keenly aware that the mission of NMR&D's overseas commands impacts force health protection and readiness.

"We rely on strong partnerships with our host nation partners and collaborate closely with them to en our partners is critical to maintaining and fostering partnerships to public health." ensure we can continue to collaborate on infectious disease research of benefit to U.S. and partner nation health."

After Vietnam, the tour moved on to Malaysia, starting with a stop in Kuala Lumpur. There, Jones' group met with partners from the University of Malaysia and the Malaysian Armed Forces. Jones and her group also visited Kota Kinabalu, on the island of Borneo, home to the Uni-Malaysia Sabah. versity of

Lt. Cmdr. Dawn Weir leads NAMRU INDO PACIFIC's efforts in Malaysia. "My mission as the NAMRU INDO PACIFIC has of this role is to foster and strength- to



our strategic conduct this work in their coun-throughout Malaysia and leverage country enables them to witness tries", Jones said. "Face time with these partnerships to improve medi- firsthand the strong relationships cal readiness and partner nation we have with our host nation part-

> "I think such visits demonstrate to our host nation partners the importance of our collaborative partnerships, and our commitment to continuing to work together to enhance health security in the region"

director of NAMRU INDO PACIF- maintained a presence in Malaysia IC Malaysia is to execute and shape since 2009, and has increased part- Jones' final stop was Singapore, the CO's [Commanding Officer] nerships and research efforts in the where she met face-to-face with vision for all the command's opera- past few years. These partnerships unit staff, including active-duty oftions in Malaysia, including re- include universities and the Malay- ficers, federal civil servants and search and international engage- sian Armed Forces, which were locally-employed foreign nationals. ments," she said. "A critical aspect stops on the tour for Jones and staff meet with representatives.

partnerships "Hosting our senior leaders inners," Weir said. "More importantly, I think such visits demonstrate to our host nation partners the importance of our collaborative partnerships, and our commitment to continuing to work together to enhance health security in the region."

> In both Vietnam and Malaysia, NAMRU INDO PACIFIC employs one active-duty medical researcher to engage with local partners and oversee projects, which focus heavily on infectious diseases. Working back through the headquarters in Singapore, the command can coordinate funding, logistics and administrative support.



Capt. Andrew Letizia is NAMRU eyes off these known and emerging NAMRU staff were excited to show tive efforts with host nations in lands Australia, Korea, Laos, Mongolia,

"NAMRU INDO PACIFIC is critical to supporting U.S. INDOPACOM and U.S. Pacific Fleet"

"Our research is primarily focused on viruses, bacteria, and parasites health." said public for the U.S. military to take our AOR."

South East in

Letizia also travelled with Jones aims to ensure military force health presented awards and shook a lot of throughout each leg of the tour, protection by addressing infectious hands. Her visit had impacts befever virus and gastro-intestinal according to Letizia, her articulatpathogens while also improving ing the command's mission on the global health.

> NAMRU INDO PACIFIC keeps its search work. finger on the pulse of potential health problems throughout the IN-DOPACOM region. Having the upper hand against infectious diseases in the area can mitigate exposure to U.S. service members, and helps safeguard their health and ability to act across the globe.

"We need to be prepared," exthat are often not found in the U.S., plained Letizia. "We need to conand therefore don't threaten our tinue our surveillance efforts and Letizia develop countermeasures to ensure "Considering competing interests medical readiness for the joint and tighter budgets, it could be easy warfighters in the INDOPACOM

"We rely on our strategic setting and excellent logistics to support 26 projects in 10 countries around the AOR," added Letizia. "We have the ability to ship equipment and supplies to conduct complex investigations of outbreaks or support a hypothesis-driven project informing the need for additional COVID-19 booster shots among our Sailors and Marines. We are a dynamic, agile, and relevant command that uses its location to support U.S. and partner nations throughout the CO-COM."

INDO PACIFIC's science director, threats. However, these pathogens Jones the projects the command is overseeing research at the com- can quickly spread among Sailors involved in. At the Singapore headmand's detachments and coopera- on a ship or Marines dug into is- quarters, Jones received a tour of Asia." the facilities, reviewed research presentation posters, received re-Papua New Guinea and Thailand. This cooperative research strategy search briefs, held an all-hands call, diseases such as malaria, dengue yond a mere meet and greet and, command's behalf is crucial to ensure ongoing support for their re-Continued on page 43



CA // FWR // NRT // KUI // RKI // KIII // SIN // SFO // ORD // DC // II // SFO // DC // II // SFO // DC // II // SFO // DC // II // SIN // DC // II // SIN // DC // II // SIN // DC // COPE's Editor-in-Chief on his travels to Asia, his visit with NAMRU INDO PACIFIC, way too many selfies,

This SCOPE exclusive is not an official Navy news release or story.



I had plenty of time to nervously watch planes take of at DC's National Airport.

'm a well-traveled Navy vet, but a pretty bad flyer; if a ship isn't bringing me somewhere, I tend to stay on the East Coast. When presented with an opportunity to travel with Capt. Franca Jones to Southeast Asia, I accepted, but with some initial reluctance. I had not been to SE Asia in more than 20 years, and while the thought of flying all day made me anxious, the prospect of seeing NAMRU INDO PACIFIC up close was too exciting to pass up.

and a truly memorable trip.

I had intended to travel to Vietnam first, but my visa was not approved in time to take part in the first leg of the tour. On Friday, and one day before I was scheduled to leave, I called SATO and had my trip adjusted to fly straight to Malaysia,

'm a well-traveled Navy vet, where I would meet up with Jones but a pretty bad flyer; if a ship and NAMRU-IP. After a sleepless isn't bringing me somewhere, I night of tossing, rolling, and freaktend to stay on the East Coast. ing out, I hit the Metro to catch the When presented with an opportunifirst train to DCA. I got through ty to travel with Capt. Franca Jones security in about five minutes, to Southeast Asia, I accepted, but which left me with plenty of time to



The look of a calm man on a plane.

panic at the gate before boarding a flight to Newark. From there I would fly 14 hours to Tokyo, followed by a seven-hour flight to Kuala Lumpur.

Did I mention I hate flying?

I walked outside the Kuala Lumpur airport a little after midnight, some 26 hours later, and it was HOT. Not DC hot, but "it's too damn late to be sweating" hot. I vaguely remember someone from NAMRU-IP telling me that getting to the city from the airport was easy. I must have thought "easy" meant "quick," because the cab ride was about an hour long.

I got to my hotel at one-something a.m., and my internal clock's on the afternoon. Surprisingly after all that traveling, I didn't have an ounce of exhaustion in me. I decided I would head out to see if anything was open and grab a bite to eat.

I didn't know much about Kuala Lumpur, and amidst all the sky-scrapers and a late-night neon haze, the Bukit Bintang area was bustling. I found a decent shawarma about a block away from the hotel. Back in my room, I FaceTimed the family, staying up until around three a.m. The view from my room was impressive.



Hello from Kuala Lumpur











From 20 stories up I could see the tons of pictures and eating my way Merdeka Tower, the second tallest through the city, which is an awe- Abu Bakar, Dimyati and Johari building in the world and a busy... some melting pot of cultures. and loud, neighborhood below.

completely given up on rest. I took Lumpur," that's important to note Centre (TIDREC) and Jeffree Joa weird shower (a walk-in with two for later. separate faucets, one cold, one hot, least 10.

to go see the Petronas Towers. I asm for this part of the world. spent the day being a tourist, taking

I couldn't sleep, and by 0800 I had to social saying "hello from Kuala Infectious Disease & Education

which had me confused on what to That evening, COM [Jones] arrived ence room. do). I walked outside and it was (with no luggage) from Vietnam. I hotter than the night before. In con- caught up with her and Capt. An- We were joined by three senior lectrast to last night's (or early morn- drew Letizia, NAMRU INDO turers, and our group sat across ing's) hustle and bustle, this area is PACIFIC's science director, in the from our Malaysian friends. I won't too quiet, and nothing is open till at hotel club. I've known Letizia for a get into details (see our other sto-I'm a bit of an architecture fan and talked about her Vietnam visit and After a long discussion about partskyscraper nerd, so I knew I wanted we both observed Letizia's enthusi- nership and collaborations, we

The next day, and at this point I have no idea which day of the week it is, I meet Jones, Capt. Jonathan Stahl (commanding officer of NAMRU-IP), Capt. Nicholas Martin (the incoming CO), Letizia and Lt. Cmdr. Dawn Weir (the command's director in Malaysia), in the hotel lobby. We take a Grab, a Southeast Asian Uber-like service, to the University of Malaysia. I try to play the background, but stick out like a sore thumb; I'm basically bigfoot with a big camera. We met Professor Kaharudin Dimyati, the school's deputy vice-chancellor. Letizia and him have a wellestablished rapport, and I could tell these two were genuinely happy to



see each other again. We met Dr. Sazaly Abu Bakar, a professor and Later that night, I posted an album the director of the school's Tropical hari, a research officer with TIDREC and head off to a confer-

few years, and despite his Mets fan-ries for that) but there was a sense dom, I enjoy his company. Jones of appreciation from both sides. watched a video about TIDREC, which mentioned NAMRU-IP.

We were forewarned about this, and thought it might just be a name drop, but no: there was a small, but significant portion of the video that talked about NAMRU-IP and the work TIDREC does in unison with the command.

We left the conference room and toured the facilities. Ol' bigfoot really stuck out here, but not in a bad way.



Dr. Hasmawati Yahya



Dr. Tan Kim-Kee giving us a tour.

"hmmm I'm the only dude with a aboard NMRC. big beard here." I had two young staff talk me up in the background, asking if I was from Texas, and saying I look like I barbeque a lot. Another guy asked if I rode motorcycles. I think the misconceptions might be more exciting than the real me. I even took a few selfies at their request.

We left the university and went for lunch at the nearby Q Bistro. This was a big group, and we took up several tables. One of the lecturers, Dr. Hasmawati Yahya, took orders for those of us who needed a hand



Lunch

what she had ordered for me, I just the hotel after a long, eventful day. said keep it spicy.

I sat at a table with Abu Bakar and Jones. Halfway across the world, and we still share so much, even outside of research. If you didn't know, COM is huge Formula 1 fan, and so is Abu Bakar. These F1 fanatics hit it off pretty good. I spent some of lunch speaking with Yahya. She is a genuinely kind and Ok, remember that social post I welcoming person; a real delight to mentioned? I rarely post. I get a be around. She's headed to the U.S. message from someone saying, soon, and will be in DC, I'm hop- "hey I'm in KL too, lets meet up!" I had previously thought to myself, ing we can connect and have her



Jones and fellow F1 fan Abu Bakar



Letizia posing for photos

After the university visit, we headed to the base, where we met Brig. Gen. Mohd Arshil Moideen, dean of the medical facility and defense health at the Nation Defense University of Malaysia, and staff. Our groups discussed their capabilities, shared interest and collaboration. At the meeting's end, the general presented everyone with a small plaque. We left the room and went outside, where a quick photo session turned into an impromptu disnavigating the menu. I don't know cussion. Then we headed back to



Arshil speaking to Capt. Martin

Its my old friend Dino. We met 24 years ago on the USS Emory S Land, a submarine tender based out of Italy. He was one of my best friends. As we grew older and the Navy had us at a distance, we would occasionally chat. We have crossed paths briefly since, but mostly kept up over socials. If you're anything like me, the post count starts to decrease over time. I couldn't tell you the last time that I saw a post from Bones (He had two nicknames; Don't ask).

"Hell yeah, brother, lets meet up!"

We were about 15 minutes apart. I checked the map for something in the middle, and found a rooftop bar called Helo Pad just seven minutes away. I gave him the details, and he asked,

"Is it cool of I bring my liberty buddy?"

"Of course, bring 'em with you!"

Now, I thought he had retired. I could have sworn I congratulated him on retiring years ago, and by 'liberty buddy,' he was just being funny and calling his wife that.

I found the Helo Pad, where the staff are dressed like pilots, and waited around for Dino to show up. Sure enough there he was, a little (well, maybe a lot) older. I wonder what he thought when he saw me. I'm not the same skinny kid anymore. He did bring a liberty buddy, too. Not his wife, but an actual Navy mandated liberty buddy.

"You're still in the Navy?"

He just kinda shrugged at that.

We passed through a curtain and hit the rooftop, about 36 floors up. WOW!!! KL is beautiful city.

What a perfect spot. We walked out moments before sunset, pink skies reflecting off glass at every angle.

Dino is on the USS Blue Ridge, and just pulled into port. Must be a flagship thing, right? We spend all night catching up. My wife, who'd been on the Land too, LOVED Dino. He was probably my only friend that she liked. She was super



Me and Dino, 36 floors up

tried a FaceTime call, but it froze stairs just in time for sunset. before they could finish saying hi. But it froze on them both smiling, so maybe that's better.

"This is my last night in KL" I said, "and what a night."

It was perfect. I tell him all about my job, and how cool Navy R&D is. Dino and his lib buddy had no idea we existed. Don't worry, I gave them the full brief. He's a senior chief IC man (interior communication) and has about 25-26 years in maybe. Dino's currently the ship's 3MC, so if anyone needed an I needed to find swimming trunks, ice cold drink on a relaxing rooftop, so I headed out to the mall a few we had a lot in common.

trip "Kota Kinabalu...then off to on a pair of shorts sized XXXXL Singapore." Stars aligned, that's the that barely fit. I'm talking stretch-Blue Ridge's next stop, and they'll ing to the point where the pockets get there the same day I will. Even- disappear. I'm exhausted, but have tually, and reluctantly, we call it a time to FaceTime my wife and night, and I head back to the hotel.

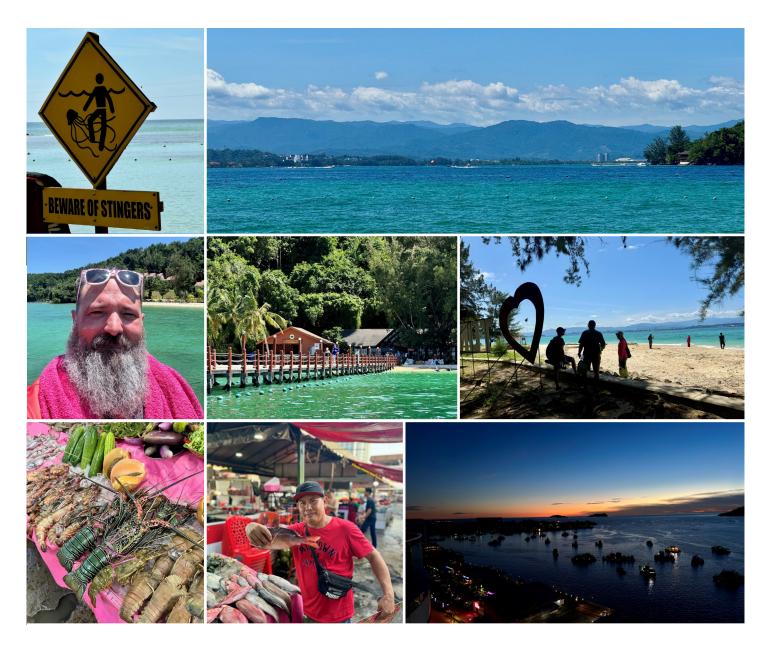
I met everyone in the hotel lobby the next morning to head to the airport, where we flew to Kota Kinabalu, on the island of Borneo. They look close on a map, but the flight was long enough to show the scale of the water and the islands.

We land in KK, and take a few Grabs to the hotel. It's also hot. The thing about the heat over there is its consistency; it's hot at noon, it's hot for breakfast and it's hot at all points in-between. Our hotel is right on the water, overlooking the China sea. I meet up with the group in the hotel club and find the hotel excited that we got to catch up. We also has a rooftop bar. I make it up-



On the hotel roof overlooking the marina

it was him. His liberty buddy was a blocks from the hotel. These malls cool guy, an IT master chief, and really make a big guy feel like a sasquatch; I go in and out of every store looking for shorts big enough. I talked about the remainder of my Nothing...Nowhere. I had to settle catch up on the news.



nothing opens till 10, and I walk by ior boat officer would be getting open-air market to buy stuff for the a surf shop that I wish I'd seen last their qual pulled. night. I'd about given up when I walked into a 7-11 for a drink, and All-in-all we hopped to 3 islands, ploring; I'd seen an awesome mural they had.

in, and signing a waiver (about an sands of tiny fish. It was a long but

to spend the day doing some island face guy - been on tons of boats, lizard up-close. hopping. I had my shorts, but need- and this thing made me uncomforted some sandals. Just like KL, able. If this was a RHIB, some jun- We got back and I headed out to the

noticed they had flip flops. I bought each less crowded than the last. on the drive back and wanted to the biggest purple-and-pink sandals They water was warm, the sun a walk down to grab a photo. I We headed down to the marina, Ironman competitor, treated the ant prawns and shrimp, crabs and where I was able to upgrade my ocean like a backyard pool. Weir lobsters too colorful for me to do sandals. After signing up, checking and I were both mobbed by thou- anything but admire.

It's a Sunday, our first full day on hour) we boarded a rental boat to awesome day checking out the is-Borneo, and the group has decided our first island. I was a Navy sur- lands. I even got to see a monitor

> family and grab a bite. I walked around a little more did some exreal face melter, and the jelly fish a walked over to the fish market aftad aggressive. COM, a legitimate ter. Every stand had fresh fish, gi-

Each stand had a full-time fisherman and part-time salesman. After a few sales pitches I settled on a spot with picnic tables and an outdoor kitchen. I picked out my fish straight from the ice; based on a recommendation, I picked a gnarlylooking and fierce-fanged red fish; it matched the tone of my sun beaten face and piqued my interest. A contain his smile. He, along with ways, I'm glad he's here; I would family operated this little eatery, one of the professors dialing-in and they took pride in their food from Japan over VTC, briefed IP and hospitality. The fish came to staff on area research and protocols. my table, head and all, split belly to These meetings were like the ones tail, deep fried with a sweet and in KL, in that they brought NMRC sour sauce and served with a pile of leadership and IP's new CO face-to left with full bellies. The Grab app rice that mimicked nearby Mount -face with their collaborators. Kinabalu. I picked up some souvenirs for the family, include some Our last night in Malaysia was a sweet and spicy corn chips I found, dinner at an Indian spot walking and headed back for the night.

In the morning, the group visited the University of Malaysia, Sabah. We met Jecelyn Leaslie John, a lab tech, who showed us around the labs. She gave a thorough brief on the lab's mission and what they do in Borneo. Letizia and Weir have gone to great lengths to strengthen and develop this relationship. Borneo is unique, in many ways, and in the eyes on an infectious disease researcher, it is of great interest.



Jecelyn Leaslie John giving COM a tour

Mohd Yosof Ibrahim. He is so happoints so far. I excitedly ripped my py to see the group, and could not curtains open only to stare directly



Weir and Dr. Mohd Yosof Ibrahim.

distance to the hotel.



Our group with staff at UMS

to the hotel and immediately meet their command is unmatched. with a side of a Singapore I don't remember – wealth. With Lambos, Ferraris and Rolls Royce's all too common. If you've been to Dubai, it's the same way. I get to my room excited to see my exclusive city We then met with the dean, Dr. view, as I've had great vantage

at the side of a building so big it blocked the daylight.

Dino had just pulled in and already hit me up. He was out in town and visiting the Gardens by the Bay for a light show. After trying to navigate the Grab app, we meet up to check out this tourist spot. In many not have ventured this far out on my own. We ended up of all places in SE Asia at a German pub with a mini-keg of wheat beer and a giant plate of sausages and potatoes, and was still being stubborn, so I found a nearby subway station.



Light at the Gardens by the Bay

Our first full day in Singapore connected COM with her long-lost They next day we flew to Singa- suitcase. She, CMC and I then pore: me and COM with a connect- headed to NAMRU-IP headquaror back through KL, and the IP ters. It was great to meet so many staff on a direct flight. I had not people that I have emailed, phoned, been to Singapore in a long time and read about in person. The hosand was excited to get back. We got pitality of the staff and the pride in



COM and CMC receiving the IP Tour

We were shown every part of the In the morning, I did my daily roucommand, from top-to-bottom, port tine of walking down to a minimart -to-starboard. Following the tour, to grab coffee. (Apparently, I was COM held a meeting with leader- up too early for hotel coffee). Then ship, directors and stakeholder. She it was on to the ambassador's resireceived thorough briefs from Lt. dence for the change of command Cmdr. Etobayeva and Lt. Nguyen ceremony. I've been involved in on their various projects. At an all-planning hundreds of these, and it hands call later that day, with all of felt good to just be the cameraman, us cramped shoulder-to-shoulder, though that proved to be no easy Singapore looking for Batman COM presented an award and a task. This was a small room, with new skyscrapers poking around, but command NAMRU-IP for all their work.

The second day was a rehearsal for livered an emotional farewell. Mar- statuettes; I got one for Dino too. the change of command. CMC, re- tin gave a great speech of his own, We didn't stay out too late as I had cently arrived and yet to acclimate and after the ceremony, there was to get up early for the airport, so we to the 12-hour shift, was too tired to the typical reception, but with some said our goodbyes, and I expressed make it past 5 p.m. After the re- highly tempting finger food. I how great it was to see him. I told hearsal, I met up with Dino to see fought all urges to pig out and his shipmates that he used to be the famous merlion statue and take walked away with a clean beard. a stroll along the river. We went to a restaurant that had elevated stages, less than a foot off the street. As I went to sit down, in a chair clearly not made for someone my size, one leg came off the platform and... down I went. I'm ok, but not too happy to report that I crushed an entire bush of flowers.



Taking a break from shooting magazine covers



Me and former IP member, Capt. Karen Corson, at the Change of Command

ly recognizable with a few dozen time soon.



thanked no stage, and no aisle splitting the it was unmistakable. While out, I crowd. Still, the ceremony was a picked up a few knick-knacks to moving event, and Capt. Stahl de- bring back, including a few merlion young, I even pulled out some old photos on my phone, causing him to blush in embarrassment.

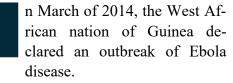
> At the airport I was a nervous wreck; we had already done a lot of flying, but I had 27 hours ahead of me, beginning with a 16-hour flight to San Francisco. I got back to DC with a backpack so full of souvenirs and gifts I couldn't have placed a single folded piece of paper in it.

I went on this trip to cover NAMRU-IP, and to tell their story. (You may have noticed a theme in This would be my last night in Sin- this issue). The staff of NAMRU-IP gapore, and I was ready to head were amazing, the food terrific, the home. I met up with Dino and some Tiger beer just as good as I rememof his shipmates for dinner at a ber and the cities and their people Turkish restaurant in a middle east- as welcoming to a sasquatch in fitern part of the city. Afterwards, we ted Nats cap as I could have hoped. migrated from place to place, and at And of course, it was unbelievably one particular bar I suddenly re- random and awesome to run into an membered I'd been there 20- old friend. I just don't know if I'm something years ago. It wasn't easi- ready to jump back on a plane any-



10 Years Later: Looking Back on NMRC Ebola Response in West Africa

By Mike Wllson



Caused by orthoebolavirus infection, exposure to the Ebola disease typically occurs through contact with the bodily fluids of an infected individual or body. Because Ebola symptoms mirror other indigenous diseases such as malaria, influenza, food-borne poisoning, basic diarrhea and Lassa hemorrhagic fever, cases went undiagnosed for three months, which quickly whelmed the local health care systems of Guinea and other affected nations.

In September 2014, the United Na-

tions Security Council passed Reso-Research Center (NMRC), arrived lution 2177, which declared the in Liberia as part of an advance parn March of 2014, the West Af- Ebola outbreak to be a threat to ty to coordinate the setup of two rican nation of Guinea de- world peace. That same month, mobile test laboratories, with six clared an outbreak of Ebola Cmdr. Guillermo Pimentel and personnel and 15,000 pounds of Chief Hospital Corpsman Jerrold equipment and supplies for three

> "We demonstrated that NMRC has lab detection capabilities for infectious diseases that are truly mobile and agile"

Diederich, both with Naval Medical months without support for Operation United Assistance (OUA).

> The labs landed on September 29, and were operational and receiving samples on Monrovia Island by October 2, and at Cuttington University Bong County lab, Liberia, on October 3. Once both labs became operational, they reduced amount of time it took to get test results from seven days to less than four hours. The labs operated daily from eight a.m. to nine p.m., and by March 2015, had processed more than 5,300 samples.





"We demonstrated that NMRC has ble that every member of the moand agile," Pimentel recalled. "We arrival. It was something remarka- employed as a civilian, along with

lab detection capabilities for infec- bile labs really enjoyed. We made tious diseases that are truly mobile Navy Medicine and NMRC proud."

know that we were able to save This year marks the 10-year annilives by reporting results in less versary of the outbreak. Pimentel, than 24 hours, versus the seven now a captain, and Diederich, redays processing took before our tired from the Navy and currently

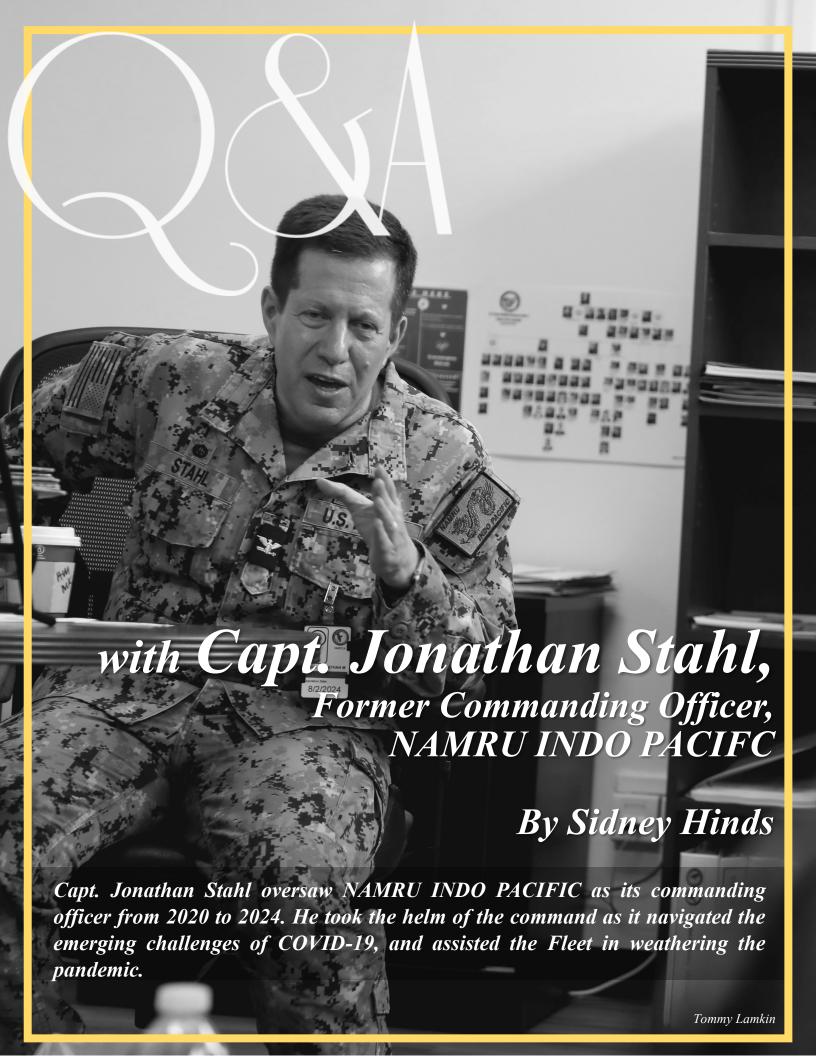
several other Sailors who participated in that unprecedented epidemic, are still with NMRC, now Naval Medical Research Command.

"It was an honor and privilege to be part of the Navy Medicine response to the Ebola epidemic in West Africa," Diederich added. "Our efforts to quickly establish the two NMRC laboratories in Liberia were crucial to providing much needed support. The training and commitment of everyone manning the laboratories helped save lives and shorten the epidemic."

In support of the Navy, Marine Corps, and joint U.S. warfighters, NMRC researchers study infectious diseases, biological warfare detection and defense, combat casualty care, environmental health concerns, aerospace and undersea medicine, medical modeling, simulation, operational mission support, epidemiology and behavioral sciences.







n 2021, under Stahl's leadership, the NAMRU INDO PA-CIFIC presented findings from a study of over 1,000 Sailors and Marines previously infected with SARS-CoV-2, the virus that causes COVID-19. These findings improved fleet understanding of the ongoing threat posed to the health and readiness of service members. COVID-19 research in the years that followed greatly aided the Fleet. In 2023, the command completed a study that quantified the value of active-duty forces obtaining additional COVID-19 vaccines.

Stahl handed over leadership of NAMRU INDO PACIFIC earlier had during my residencies piqued tially help many thousands in a way this year to Capt. Nicolas Martin, my interest in pursuing further and one-on-one just prior to his retirement from the formal training in research, and af-cannot. Navy after 30 years of service. Pri- ter 14 years of service in the clinior to Stahl's retirement, he chatted cal world, the Navy provided me SH: What bases/locations did you with the SCOPE's associate editor, with the opportunity to go back to work from in that time? Were Sidney Hinds during, a virtual in- school and earn a PhD. I then spent there any that you enjoyed espeterview, to discuss NAMRU INDO about 6 years at NAMRU SAN cially, or any that made working PACIFIC, and the work he has ANTONIO as a PI. done while leading it.

Editor's Note:

Content from this Q&A has been been edited for brevity and clarity.

Sidney Hinds: To start, tell me a bit about your path to joining the Navy, and to joining Navy Medicine Research & Development specifically.

Jonathan Stahl: I joined in 1994 to serve my country, see a bit of the world, and gain experience as a dentist. The research experiences I



SH: What sort of work did you do with the Navy before getting your JS: I was assigned overseas to PhD?

between NMRC Public Affairs and storative dentist in the Navy. Over I also was assigned to a small Navarious enterprise leaders. It has the course of my career, I did a lit- val Facility in Panama City, FL in tle bit of everything, since dental addition to 2 tours in San Diego. I specialty support was not always did one deployment to Kuwait. available in some of the more remote locations I worked in. I also I was also sent for a 2 year resitry (tooth decay prevention) and trained with the Army. served as the Navy Special Leader for that prior to starting my re- SH: What are the biggest differsearch track.

> What excites me about research is it work in a CONUS command? provides the opportunity to poten-

clinical interactions

from additional OCONUS location appealing to you?

MCAS Iwakuni Japan and NAS Keflavik, Iceland. I did a tour on taken from an earlier conversation JS: I was a comprehensive and re- USS THEODORE ROOSEVELT.

have expertise in preventive dentis- dence at Fort Hood , TX where I

ences that working in an OCO-NUS command presents versus



and local partners. It's an honor to tion would mitigate yellow fever. represent the U.S. abroad, and we Overseas labs continue to play an must always be aware that we are important role in Force Health Proguests of our host nations and work tection U.S. and partner nation serto gain a greater understanding of vice members by understanding the the cultural contexts that surround patterns of disease in various reus.

SH: What are some of the unique disease threats. challenges and opportunities that come with working alongside rep- SH: How would vou describe the resentatives and from partner nations on your on U.S. service members, our part-NAMRU mission(s)?

JS: Aligning our research priorities can be complex. Our goal is to be a JS: We look at patterns of disease strong partner, but the focus of host and countermeasures to infectious nation partners may be geared to- disease threats in parts of the world ward issues that are less impactful where there are not a lot of U.S. to our unique military-age popula- service members permanently astion. Host nation militaries share a signed. Our goal to is identify more similar demographic and mili- threats and gain a greater undertary-to-military interactions can be standing of the pathogens so that a rewarding and unique way to en- when U.S., partner and host nation hance global health security. The forces traverse the region, there will U.S. Military has a long history of be a greater understanding of mitiinfectious disease work overseas. I gation measures required. Our fothink back to Walter Reed and un- cus in most cases is threats that are

JS: Engaging with host nation staff derstanding that mosquito eradicagions of the world in addition to developing countermeasures

> organizations impact of your command's work ner nations, and Global Health at large?

likely to affect service members and are not vaccine-preventable. Many of these diseases are concerns for local populations, so our work ultimately enhances global public health as well.

SH: What would you say sets the work done at NAMRU INDO PA-CIFIC apart from that of other OCONUS commands? And what makes your command unique within the enterprise?

JS: I can think of a few unique projects, such as a febrile surveillance project in Malaysia that looks in particular at P. Knowlesi, a form of malaria associated with simians that can cross over to humans. This malaria is centered in Eastern Malaysia (Borneo) and was thought to be rare in humans until about 20 years ago. NAMRU INDO PACIFIC and our Malaysian partners are looking at exposure rates to gain a better understanding of the disease.

SH: Outside of work, what have you enjoyed most about working overseas? What positive experiences or lessons have you come away with at your current locations?

JS: Although living overseas may not appeal to everyone, I have enjoyed it. Experiencing life in a different culture is really a priceless experience. From the part of the world I live in you can fly to so many distinct cultural locations in just a few hours, which is not feasible from most of the U.S. Engaging with so many welcoming individuals in those cultures is an incredible experience.■

Malaria and Fevers of Unknown Origin in the Dragon's Den

"With the conduct of operations into the highlands and jungles where malaria control measures have been impossible due to Viet Cong control, the incidence of malaria has risen to the point where it is now a significant military as well as medical problem."

- Professional Knowledge Gained from Operational Experience in Vietnam, 1965-1966 (NAVMC 2614, 1967)



alaria proved a very serious challenge for military personnel in the Vietnam Conflict. From 1964 to 1975, there were 24,606 cases of malaria in the Navy and Marine Corps, amounting to over 391, 965 sick days lost. Only wounds and non-battle injuries amounted for more personnel days lost among combatants.

The *Plasmodium falciparum* form of malaria was especially pernicious. In 1968 alone, 75 percent of the malaria cases in theater were *P. Falciparum* infections—which unlike *P. vivax*—proved resistant to the standard Chloroquine-Primaquine (C-P) regimen.

In February 1968, after dealing with increased levels of malaria, the Commander, U.S. Military Assistance Command, Vietnam (MACV)—which oversaw Armed Forces in theater—authorized the administration of Dapsone tablets (diaminodiphenyl sulfone) in addition to the C-P regimen. An anti-inflammatory that historically had been used for everything from acne to leprosy, Dapsone was seen by some as a dubious prophylaxis.

To investigate the malaria problem, the Navy Disease Vector Ecology operations a naval station hospital the Bureau of Medicine and Sur- and Control Center (DVECC) and beginning in February 1967, gery (BUMED) sent preventive (Now known as the Naval Ento- the Naval Medical Research Unit medical specialist Capt. Charles mology Center of Excellence) in No. 2 Detachment (NAMRU-2 Miller to Vietnam in July 1969. Jacksonville, Fla., developed the Det). During its brief existence, the Much of his work would be con- Helicopter Improved Aerial Insecti- NAMRU-2 Det Da Nang directed ducted in concert the Navy Preven- cide Dispersal Apparatus prototype extensive research efforts on Vitive Medicine Unit (PMU) Da as an alternative to liquid droplet etnam fevers of unknown origin Nang. Established on July 7, 1965, (fog) dispensers. Designed to (FUO). Of the 650 FUO patient the PMU executed sanitation and spread granular insecticides that samples received from February to vector control practices, conducted could penetrate through dense jun- September 1967 alone, NAMRU malaria surveys, oversee field sur- gle areas, the device consisted of a personnel identified previously uncollect throughout the tactical zone. Of the helicopter from which the insecti- arbovirus, meningoencephalitis and 75 species of mosquito collected, cide was propelled by a stream of malaria. PMU personnel identified two sub- forced air. It would be used extenspecies of Culex (Lophoceraomyia sively in theater and serve as the Sources: Bureau of Medicine and and Mochthogenes) never before basis for apparatuses later used by Surgery. (1968). Combat and Field identified in Vietnam.

Aerial insecticides prove a key component of the Navy's vector From 1965 to 1970, the coastal city Medical Department Orientation

larvae receptacle placed at the nose of a diagnosed cases of mosquito-borne the Army and civilian organiza- Medicine Practice Manual.

control effort in theater. In 1967, of Da Nang also served as a base of Manual.

Bureau of Naval Personnel. (1969)



Aerial view of the Naval Support Activity Da Nang in 1968. In the late 1960s, this NSA Da Nang had the distinction as the largest land-based facility in Vietnam and home to a Station Hospital, Preventive Medicine Unit and the NAMRU-2 Det.

Dayton continued from page 19

researchers found that female avia- erational setting. tors were affected at a disproportionate level.

those products.

The team's work has provided rec-bladder infections." ommendations to collaborating product designers and engineers to NAMRU Dayton, alongside fellow

Researchers also focused on specif- assist in the planning, research, de- commands within Navy Medicine ic situational factors that prevent velopment and testing of new sys- Research aviators from using available tech- tems. Kaplan emphasized that the (NMR&D), participated in MHSRS nologies, such as combating stigma issues facing female aviators have 2024, collectively presenting 31 and a lack of privacy. While data solutions, and that her team is breakout sessions, 88 posters, mulshowed urinary retention conse- working to overcome challenges to tiple lectures and two manned quences for all pilots and aircrew, putting those solutions into the op-booths in the exhibit hall.

pact urinary tract infections and cology and aerospace medicine.

and

NAMRU Dayton, home of the En-"As missions get longer, humans vironmental Health Effects Laboraneed to attend to their bodies. tory and the Naval Aerospace Med-Through their research, Kaplan's Whether it is fatigue, urination or ical Research Laboratory is located team hopes to give feedback on the hydration, our job is to make it eas- at Wright-Patterson Air Force Base, functionality of bladder relief prod- ier for the warfighter to do what Ohio. The command's mission is to ucts in aviators' day-to-day lives, they need to do," Kaplan said. optimize the readiness, perforand are looking at any potential "Even being 3% dehydrated can mance and survivability of operamission-specific challenges to using reduce an aviator's load factor tol- tional forces through research into erance significantly. It can also im- environmental health effects, toxi-

Jones SE Asia Trip continued from page 28

"Capt. Jones is a key link between prise's commands, this past April Jones' visit was also in part to prethe NMR&D enterprise, funders, Air Station, Sigonella, Italy. line flag officers, and of course Navy medical R&D leadership to "NAMRU INDO PACIFIC is criti- Stahl, who has been with the unit name a few," Letizia said. "Her in- cal to supporting U.S. INDO- for six years, retired this year after sights and advocacy for our com- PACOM and U.S. Pacific Fleet and 30 years of service. mand to Navy R&D helps com- is the furthest away from our headmunicate our work to various stake- quarters in Maryland", said Jones. The role of NAMRU INDO PAholders and improves the science "It is important to visit the com- CIFIC and the command's locawe conduct and how we execute mand and meet with staff to bridge tions are unique for Navy Mediour mission."

AFCENT, another of the enter- and military partners in the region." geopolitical environment." ■

the overseas laboratories, like ours for the opening of a new command side and other research scientists within headquarters facility aboard Naval PACIFIC's change of command, in

> the gap in distance with meaningful cine. conversations of how they are exe-

over **NAMRU INDO** which Capt. Jonathan Stahl was relieved by Capt. Nicholas Martin.

The typical tour length for leading cuting their mission and what we as "In my view, what sets NAMRU NMRC and the NMR&D enterprise a headquarters can do facilitate INDO PACIFIC apart within Navy is a few years, allowing the com- their work. My hope is that these Medicine is its strategic location in mander to visit each command at meetings give them an opportunity one of the world's most consequenleast once, usually while presiding to show their work to the headquar- tial regions," said Garcia. "It is both over a change of command ceremo- ters and provide us an opportunity situated at a major epicenter for ny or a similarly special event. to recognize the strong work they emerging infectious disease threats visited NAMRU EUR- are doing in support of host country as well as within a highly dynamic

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A closer look at Navy Medicine Research & Development



NMR&D UNITS RECEIVE MHSRS AWARDS

By HM2 Alejandra Ramírez Alarcón Photos by Sidney Hinds

KISSIMEE, Fla (Aug. 30, 2024) Navy Medicine Research and Development (NMR&D) commands won multiple awards during the Military Health System Research Symposium (MHSRS), which began on August 25 and concluded on August 29.

At the August 26 MHSRS kick-off ceremony, Lt. Huy Nguyen and his team of researchers with Naval Medical Research Unit (NAMRU) INDO



PACIFIC received the 2024 Outstanding Research Accomplishment Team award for their work on Long-Term Immunity Against Novel and Known Strains of SARS-CoV-2 (LINKS-COVID). Roxana Lescano, NAMRU SOUTH's director of research administration, received the 2024 Distinguished Service Award. NAMRU INDO PACIFIC'S LINKS-COVID research found that activeduty individuals who have not had a SARS-CoV-2 exposure, either through vaccination or natural infection, within 12 months of enrollment into the study, had significantly lower binding and neutralizing antibodies against circulating SARS-CoV-2 variants, compared to those with an exposure in the past 12 months.

Lescano, who has worked with NAMRU SOUTH for over 30 years, is responsible for the Research Ad-

ministration program at NAMRU SOUTH, which oversees the review of scientific protocols through the Institutional Review Board.

On the final day of the conference, Naval Health Research Center's Dr. Evan Chinoy and Dr. Rachel Markwald received a first-place award during the poster presentation award ceremony. Dr. Annette Rodriguez, with NAMRU San Antonio, accepted a second-place award for her poster. The two NMR&D posters were selected from among over 1400 presented during the symposium. Winners were recognized for research content, poster design and the author's ability to expediently summarize the science.





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A closer look at Navy Medicine Research & Development



KISSIMMEE, Fla. (Aug. 28, 2024) Master Chief Hospital Corpsman Phillip Jean-Giles, command master chief for Naval Medical Research Command (NMRC) speaks to a Sailor attending the 2024 Military Health System Research Symposium (MHSRS). — *Tommy Lamkin*



◆BOSTON (July 4, 2024) Navy Diver 1st Class Cameron Duffy and Chief Navy Diver Christopher Cobb, with Naval Submarine Medical Research Laboratory set up underwater tic-tac-toe boards for the diving exhibit at Boston Navy Week. — Navy Diver 1st Class Connor Houtchens

SIGONELLA, Italy (Sept. 6, 2024)

► Cmdr. John North, with Naval Medical Research Unit EURAFCENT, presents a bouquet to his wife Rose during his promotion ceremony. — *Greta Ruffino*



Scope 2005

A closer look at Navy Medicine Research & Development



GROTON, Conn. (July 20, 2024). Hospital Corpsman 2nd Class Spencer Warren and Navy Diver 1st Class John Ahnen present on Naval Submarine Medical Research Laboratory's (NSMRL's) diving mission and capabilities to boy scouts during a Scouting America Day event. — *Mark Jones*



SAN DIEGO (Aug. 1, 2024). Naval Health Research Center (NHRC) commanding officer, Capt. Eric R. Welsh, takes a group photo with intern Gabriella Alessio, and NHRC's Applied Translational Exercise and Metabolic team (ATEAM) to commemorate NHRC's first NR EIP 10-week internship.

- Matthew Peterson



DAYTON, Ohio (Aug. 8, 2024) Miguel Bastos, a Navy Research Enterprise Internship Program (NREIP) participant with the Naval Aeromedical Research Laboratory (NAMRL) presents his summer research with NAMRL at Naval Medical Research Unit (NAMRU) Dayton, Wright-Patterson Air Force Base, Ohio

- Zachary Wilson



LIMA, Peru (Sept. 6, 2024) Cmdr. Brian Pike, Executive Officer of NAMRU SOUTH, promotes Lt. Yuliya S. Johnson to her new rank of Lt. Cmdr. — *Monica Barrera*



SAN ANTONIO (Sept. 13, 2024) NAMRU San Antonio Executive Officer Cmdr. Nicholas Hamlin promotes Lt. Anca Selariu to her new rank of Lt. Cmdr.

— Burrell D. Parmer

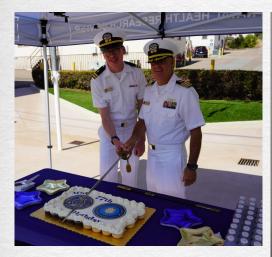


GROTON, Conn. (July 31, 2024) Captain Matthew Jamerson, commanding officer of NSMRL, presents Lt. Jennifer Louie with a commemorative plaque

— Emily Swedlund

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A closer look at Navy Medicine Research & Development



SAN DIEGO (Aug. 5, 2024) Lt. Matthew Peterson and Capt. David Bacon, of Naval Health Research Center (NHRC) cut a cake during a ceremony commemorating the birthday of the Navy Medical Service Corps. — Danielle Cazarez



GROTON, Conn. (Aug. 19, 2024)
Dr. Brandon Casper presents on NSMRL's warfighter performance to Captain Rona Green, the commanding officer of the Navy Medicine Readiness and Training Command (NMRTC) New England, and Commander John Hoyos, the officer in charge at Navy Medicine Readiness and Training Unit Groton. Capt. Green is the first black woman to take command of NMRTC New England and met with representatives from across NSMRL during her tour.

— Emily Swedlund



SAN DIEGO (Sept. 9, 2024) Dr. Pinata Sessoms, of Naval Health Research Center (NHRC) demonstrates the Computer Assisted Rehabilitation Environment (CAREN), an immersive virtual reality environment systems used for clinical studies and rehabilitation to members of Office of Women's Policy (OWP). — *Danielle Cazarez*



SAN ANTONIO (Aug. 8, 2024) Five student interns enrolled in the Office of Naval Research's Naval Research Enterprise Internship Program (NREIP) presented their research to mentors, scientists and staff assigned to Naval Medical Research Unit (NAMRU) San Antonio at Willis Hall.

—Burrell Parmer



SILVER SPRING, Md. (Sept. 3, 2024) Zachary Rivas, with Naval Medical Research Command (NMRC), examines the health of top-layer human skin cells to determine if they are viable for testing against infection. These cells, the most common in human epidermis, are used because they are a good early-stage model for wound infections.

- Michael Wilson

